CHLOROTIC LEAF BANDING (high soil-surface temperatures) was observed at Indian Head, Sask, This disorder is not common on oats (T.C. Vanterpool).

BARLEY

Manitoba Barley Disease Survey - 1959

H. A. H. Wallace

A survey was made of 75 barley fields in southern Manitoba. Due to the wet season leaf and stem rusts and mildew were much more prevalent in this area in late ripening fields than is usually the case. They were absent in early ripening fields. Most of the stem rust infection occurred on Montcalm, the mildew on Parkland, and leaf rust on both varieties. Bacterial blight was not seen in farmers' fields but was severe on early ripening varieties of barley in experimental plots at Winnipeg. Table 1 shows the relative importance of each disease, Smuts were not recorded.

Table 1. Manitoba Barley Disease Survey - 1959

Disease	Amount of Infection (75 fields)			
	Trace	Light	Moderate	Severe
Net Blotch *(D. teres)	15	10	19	21
Spot Blotch *(B. sorokiniana)	19	1	2	0
Speckled Leaf Blotch (Septoria passerinii)	7	2	4	1
Powdery Mildew (Erysiphe graminis)	2	3	3	1
Leaf Rust (Puccinia hordei)	7	14	6	3
Stem Rust (Puccinia graminis)	12	7	8	2
Yellow Dwarf (Virus)	1	0	1	0
False Stripe (Virus)	1	0	0	0

* See footnote, page 1 (D. W. C.).

SPOT BLOTCH (*Bipolaris sorokiniana) was recorded as 2-tr. /8 s. Alta, fields (J.S. Horricks). It was sl. in Rust Nurseries at Charlottetown, P. E.I. (J.E, Campbell).

COMMON ROOT ROT (*Bipolaris sorokiniana and Fusarium spp.). In n, Alta, 30/38 fields surveyed were affected, 14-tr. 13-sl. 3-mod. (W.P. Campbell). All 8 fields examined in s. Alta, had root rot, 2-tr. 6-sl. (J.S.H.). Thirteen fields surveyed in Sask, had an average root rot rating of 11.45. This rating, as usual, was higher than that observed for wheat (B.J. Sallans).

NET BLOTCH (*Drechslera teres) was 7-tr./38 fields in n. Alta. (W.P.C.). It was 5-tr./8 in s. Alta. (J.S.H.), and tr, at Watrous, Holdfast and Regina, mod. at Leross and Annaheim; and sev, at Meadow Lake and Waldron in Sask. (B. J. S.).

STEM RUST (Puccinia graminis). Traces of stem rust were seen at Regina, Waldron and Saskatoon, Sask. (B, J. S.).

LEAF RUST (Puccinia hordei). Trace - sl. infections were present at Watrous and Saskatoon, Sask. by mid-August (B. J, S.).

SCALD (Rhynchosporium secalis) was 7-tr. 4-sl. 3-mod. 2-sev./38 fields surveyed in northern B.C. and n. Alta. The mod-sev, infections were in the Dawson Creek, B.C. area (W.P.C.). A trace was found in 1/8 fields seen in s. Alta. (J.S.H.).

SPECKLED LEAF BLOTCH (Septoria passeniniti). Twelve138 n. Alta. fields were diseased, 8-tr. 3-sl. 1-mod. (W.P.C.). In s. Alta. it was 1-tr./8 (J.S.H.).

COVERED SMUT (Ustilago hordei) was 1-tr./8 in s. Alta. (J.S.H.). Traces were found in 3/21 fields examined in Sask, (R.C. Russell).

LOOSE SMUT (Ustilago nuda and U. nigra). Eleven/38 fields examined in n, Alta. had loose smut, 8-tr. 2-1%, 1-2% (W.P.C.). One field/8 in s. Alta, showed a trace (J.S.H.). In Sask., 15/21 fields surveyed were affected. The percentage of fields affected was about average but the severity of infection was lighter than usual (R.C.R.).

BACTERIAL STREAK (Xanthomonas translucens), One field at High Prairie in n. Alta. showed a tr. infection (W.P.C.) and it was 1-tr./8 fields examined in s. Alta. (J.S.H.).

FALSE STRIPE (virus). Four/8 fields in s. Alta. showed tr. infections (J.S.H.).

* See footnote, page 1 (D, W.C.).

YELLOW DWARF (virus) was tr.-sl. in plantings at Ste. Anne de la Pocatière, Que, (R.O. Lachance),

CHLOROTIC LEAF BANDING (high soil-surface temperatures) caused mod. damage to seedlings at Madison, Sask. (B,J,S.),

PHOSPHORUS DEFICIENCY resulted in stunted plants with purplish leaves on high land at Bickleigh, Sask. (T. C. Vanterpool).

RYE

STEM RUST (Puccinia graminis). Trace amounts occurred on Prolific rye in the Rust Nurseries at Charlottetown, P.E.I. (J.E. Campbell).

LEAF RUST (Puccinia recondita) was mod. on Prolific rye at Charlottetown, P.E.I. (J.E.C.),

CEREAL RUSTS IN CANADA IN 1959

B. Peturson, G.J. Green and D.J. Samborski

The following report is a condensed form of Report #15 issued in January, 1960 by the Plant Pathology Section, Canada Department of Agriculture Research Station, Winnipeg, Man

Prevalence of Air-borne Rust Spores in Western Canada

Slides were exposed in stationary spore traps at several localities in Man. and e. Sask. in 1959 to determine the prevalence of air-borne rust spores.

North winds prevailed over the Great Central Plains area during most of May and conditions were unfavorable for the northward movement of rust spores except for about a three day period centering on May 24th when strong south winds were general. During that period (May 22 - 25) several leaf rust spores were caught on slides exposed at Morden and Winnipeg. During the remainder of this month no spores appeared on any of the slides exposed.

During June and July south winds prevailed and there were several periods when wind movements were very favorable for northward spore dispersal. Rust spores, particularly leaf rust spores, were much more prevalent in the air over Man. than during the last few years. The spore-trap data indicate that the early spore showers were centered over Man. and extended westwards as far as Brandon, but not as far west as Indian Head and Regina in Sask.

In 1959, cereal rusts first appeared in the Prairie Provinces in the southern part of the Red River Valley, and gradually spread northward and westward throughout most of Man. and n.-e. Sask, The advance of the rusts westward into the dry areas of s.-w. Man., Sask., and Alta, was greatly retarded by lack of moisture and only trace amounts of rust developed in these areas.